

A revision of genus *Vatica* L. (Dipterocarpaceae) in Borneo I : Taxa in Sabah and Sarawak

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Abstract : A taxonomic revision of the genus *Vatica* L. (Dipterocarpaceae) in Borneo focusing on taxa Sabah and Sarawak is presented herein. A total of 46 taxa from 40 species is recognised and grouped into three sections. The sections are sect. *Vatica* 17 taxa (12 species), sect. *Sunaptea* 22 taxa (21 species), sect. *Pachynocarpa* with four species, and *Vatica pentandra* which has five stamens is not placed in any section due to lack of information of the fruit calyx characteristics. Full descriptions of species are excluded as they are presented elsewhere.

Key words : *Vatica*, Dipterocarpaceae, taxonomic revision, Borneo, Sabah, Sarawak

INTRODUCTION

Vatica L. is the third largest genus in the family Dipterocarpaceae after *Shorea* and *Hopea* with approximately 71 species described. Since the last two decades, many new species have been discovered and described, particularly from Peninsular Malaysia and Borneo, that include *V. yeechongii* Saw (Saw, 2002), *V. cuneata* El-Taguri *et* Latiff, *Vatica spatulata* El-Taguri & Latiff (El-Taguri & Latiff, 2012), *V. kanthanensis* Saw (Tan *et al.*, 2014), *V. adenanii* Meekiong, Nizam, Latiff, Tawan & Yahud (Meekiong *et al.*, 2014a), *V. latiffii* Meekiong (Meekiong, 2015), *V. abdulrahmaniana* Chua, *V. mirzaniiana* Chua (Chua *et al.*, 2015), and *V. najibiana* Ummul-Nazrah (Ummul-Nazrah *et al.*, 2018) and making a total of 80 described species. A total of 33 species (now 38 species) have been recorded from Sabah and Sarawak that occur in various habitats, especially in mixed dipterocarp forest (MDF) and also non-saline habitats, from sea level up to 1800 m altitude (Ashton, 2004).

The genus is locally known as *resak* is a small to medium-sized trees and among the important timbers in the Southeast Asia, particularly for light construction materials. The *resak* trees are usually an understorey and main canopy and mostly found in the lowland MDF and *kerangas* forest. They are very common in certain localities with several characteristics that are quite similar to other families making it very difficult to distinguish. For instance, the smooth bark, absence of dammar smear, irregular branched and diffuse crown, reticulate intercostal venations might be confused with *Aporosa* or *Hydnocarpus* (Ashton, 2004). They are distinguishable from other genera in Dipterocarpaceae by the absence of looped intra-marginal nerves on the leaves, the winged fruits enclose less than half of the nut, anthers are glabrous and style is stout (Ashton, 2004; Meekiong *et al.* 2014b; Pooma & Newman, 2001).

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